

ABSTRACT

A vital signs detection system has

- a terminal capable of being connected to detecting means of detecting vital signs;

- a program server of storing a program and/or data to operate the detecting means; and

- an information server of communicating with the terminal;

wherein:

- when an operation switch of the detecting means is turned ON, the terminal transmits information including the type of the detecting means to the program server;

- on receiving the information, the program server transmits a predetermined program and/or data corresponding to the information to the terminal according to the information;

- the detecting means operates according to the predetermined program and/or data received by the terminal, and thereby detects vital signs; and

- the terminal transmits the vital signs detected by the detecting means to the information server.

Figure 1

1 Health control apparatus

Figure 2

401 Vital data

402 Programs

403 Parameters / initial setting data

400 Storage region in storing means

401a Measurement data region

401b Processing data region

Figure 3

S201 Sensing of vital signs

S202 A/D conversion of data

S203 Storing of vital data temporarily in time series

S204 Transmission

S205 Reception

S206 Storing in storing means

S207 Processing of data

S208 Displaying of processing result

Figure 4

1 Network

Figure 5

- 1 Health control apparatus (consumption calorimeter)
- 141 Frequency processing means
- 142 Heart rate measuring means
- 143 Calorie consumption calculating means

Figure 6

- 128 Inputting means

Figure 7

- 129 Notifying means

Figure 8

- 143 Calorie consumption calculating means
 - 151 Calculation section
 - 152 Accumulation section
 - 153 Subtraction section
 - 154 Achievement time calculation section
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- 1 Data
 - 2 Heart rate
 - 3 Calorie consumption
 - 4 Calorie consumption, accumulated value
 - 5 Accumulated value
 - 6 Accumulated value and target value

- 7 Remained calorie consumption
- 8 Calorie consumption
- 9 Remained calorie consumption
- 10 Time of achievement

Figure 9

- 127 Server
- 302 Health control instructor (doctor)
- 301 User (patient)
- 1 Modification and/or change
- 2 Exercise menu
- 3 Exercise indices
- 4 Health control indices
- 303 Health control program
- 304 User chart
- 305 Measurement data
- 306 Warning button
- 5 Measurement data

Figure 10

- 1 Start
- 2 No
- S331 User chart
- S332 Extracting of short-term program
- S333 Download to health control apparatus

- S334 Exercise and measurement
- S335 Upload of measurement data
- S336 Renewal of measurement data
- S337 Within predicted range?
- S338 Adding of warning button

Figure 11

- 1 Exercise indices, health control indices, and exercise menu for next duration
- 2 Exercise indices, health control indices, and exercise menu
- 3 User ID
- 4 Download
- 305 Measurement data in past
- 320 User ID table / User ID
- 321 Personal data

Figure 13

- 1 Consumption calorimeter main body
- 11 Heart rate detecting means
- 12 Calorie consumption calculating means
- 16 Body temperature detecting means
- 17 Body motion detecting means
- 18 Correlation relation storing means
- 20 Notifying means

Figure 14

- 1 Program server
- 2 Information server

Figure 16

- 1601 Power ON
- 1602 Transmission of target person ID to information server
- 1603 Reception of target person ID
- 1604 Searching of target person chart
- 1605 Extracting of vital signs item to be monitored
- 1606 Transmission of vital signs item to program server
- 1607 Reception of vital signs item
- 1608 Extracting of program and/or data
- 1609 Transmission of program and/or data to terminal
- 1610 Reception of program and/or data
- 1611 Notifying of vital signs item to be monitored to target
person
- 1612 Setting-up of program and/or data
- 1613 Operation of program according to operation data
- 1614 Acquiring of vital signs
- 1615 Transmission of vital signs to information server
- 1616 Reception of vital signs
- 1617 Renewal of contents of chart
- 1 End

Figure 17

1 Start of operation
1700 Ready

Figure 18

1801 Health control apparatus carries out inspection
1802 Inspection item judgment server managing means judges
inspection result
1803 Is inspection to be continued?
1804 Inspection is terminated
1805 Is inspection item to be changed?
1806 Inspection item is changed
1807 Is inspection method to be changed?
1808 Inspection is continued by same method
1809 Inspection method is changed

%% End